ADEQ

A R K A N S A S
Department of Environmental Quality

May 2, 2011

Mr. James Lindsey
PO Box 335
Caldwell, AR 72322

RE: Revised Brownfields Comprehensive Site Assessment Report
Lindsey Cotton Warehouse, LLC – Former Yale Hoist Facility
(AFIN: 62-00001; EPA ID: ARD007016454)

Dear Mr. Lindsey:

On March 29, 2011, ADEQ - Hazardous Waste Division (ADEQ) met with Lindsey Cotton and their consultants. The following provides additional clarification discussed at that meeting as well as an internal ADEQ meeting that followed:

- ADEQ still requires responses to the review conducted of the Revised Comprehensive Site Assessment (CSA) Report noted in the letter to you dated February 24, 2011. A copy of this letter is attached for your reference.

- Although all parties agree the extent of vertical contamination is at the bottom of the groundwater aquifer, as indicated in the February 24 letter, the installation of additional monitoring wells or additional soil borings may be necessary to determine the horizontal and lateral extent of contamination.

- The extent of soil contamination must be determined. Surface soil and sub-surface soil samples must be collected at the following locations and analyzed for volatile organic compounds and semi-volatile organic compounds:
    - South of Monitoring Wells No. 1 and 5 (MW-1 and MW-5)
    - West of Monitoring Wells No. 5 and 3B (MW-5 and MW-3B)

These samples may be collected either through soil borings or additional monitoring wells.

As stated in the February 24 letter, ADEQ believes there is sufficient information to begin the remedial design for the site as part of the Property Development Plan (PDP). A method to determine the effectiveness of the remedy will be required with the submittal of the PDP. Please consider that data from any additional sampling locations will be helpful in making this determination, i.e., a monitoring well network to measure the decrease in contaminant levels at the property boundary. Also to prevent groundwater flow through the contaminated soil at depth, a barrier may be needed in the northeastern part of the site to divert groundwater flow. Again, information obtained from the additional borings or wells will be of value.

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Regarding the level of cleanup required by a Brownfields Participant, it is the practice of ADEQ to assess the level of contamination in groundwater both on and off-site. The levels of contamination in groundwater shall remain constant or decrease over time. The proposed remedy(ies) in a PDP must ensure this occurs.

Please incorporate this information as needed in preparing your response to the February 24 letter.

The ADEQ encourages you to schedule an additional teleconference or a meeting at our office to discuss these comments. Please contact me at 501-682-0853 or pearson@adeq.state.ar.us to arrange a meeting, discuss these comments, or if you need further assistance.

Sincerely,

Mary L Pearson

Mary L. Pearson
Project Coordinator

cc: Doug Ford, PMI

ADEQ

A R K A N S A S
Department of Environmental Quality

HAZARDOUS WASTE DIVISION ROUTING SLIP

April 26, 2011

Subject: **Lindsey Cotton – REVISED Former Yale Hoist Brownfields Revised CSA Report Teleconference and Internal Discussion Comments Letter**

From: Mary Pearson

Route in turn to:	***Action Needed***	***Initials***	***Date***
Jay Rich	☑ Concurrence ☑ Review	JR	4-27-11
Ann Wiley	☑ Concurrence ☑ Review	AMW	4/26/11
Dianna Kilburn	☑ Concurrence ☐ Review	DK	4/27/11
Mostafa Mehran	☑ Concurrence ☑ Review	MM	4/27/11
Annette Cusher	☑ Concurrence ☑ Review	AC	4/27/11
Terry Sligh	☑ Concurrence ☑ Review	TS	4/26
Tammie Hynum	☑ Concurrence ☑ Review	~~TH~~	4/27/11 w/comments
Tamara Almand	☑ Concurrence ☑ Review	JA	4-27-11
Clyde Rhodes	☑ Concurrence ☐ Review	CR	05/02/11

****Note: Marking the Concurrence box indicates the individual agrees with the applicable text as it relates to their individual discipline and Work Section (e.g., Engineer; Risk Assessor; Geology; Compliance; Policy/Management), as applicable. Marking the Review box indicates the individual has read the document.***

DISPOSITION:

Return to Mary Pearson

COMMENTS:

Lindsey Management Co., Inc.

1200 E. Joyce Boulevard ■ P.O. Box 13000 ■ Fayetteville, AR 72703 ■ (479) 521-6686 ■ Fax (479) 527-8840

May 4, 2011

Ms. Mary Pearson
Arkansas Dept. of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Lindsey Cotton Warehouse

Dear Mary:

Thank you for taking the time to set the meeting that was held yesterday. As a result of that meeting, it is my understanding that the other than providing verification that soil samples were taken "in" the ditches along the western and southern property lines, there is no further site assessment required.

It is also my understanding that Lindsey Cotton Warehouse, LLC can begin work on a Property Development Plan, and that it is time to start work on an implementing agreement.

If my understanding of the meeting is not correct, please let me know.

Thank you,

Sincerely,

Hugh Jarratt
Lindsey Cotton Warehouse

ADEQ

A R K A N S A S
Department of Environmental Quality

May 25, 2011

Mr. Hugh Jarratt
Lindsey Management Co., Inc.
1200 E. Joyce Boulevard
PO Box 13000
Fayetteville, AR 72703

RE: Revised Brownfields Comprehensive Site Assessment Report
Lindsey Cotton Warehouse, LLC – Former Yale Hoist Facility
(AFIN: 62-00001; EPA ID: ARD007016454)

Dear Mr. Jarratt:

It is my understanding that on May 3, 2011, ADEQ - Hazardous Waste Division (ADEQ) met with you to discuss the Lindsey Cotton Brownfields project. The following provides additional clarification discussed at that meeting:

- ADEQ still requires responses to the review conducted of the Revised Comprehensive Site Assessment (CSA) Report noted in the letter dated February 24, 2011. A copy of this letter is attached for your reference.

- ADEQ requires verification that soil samples were taken within, as opposed to adjacent to, the drainage ditches located along the western and southern property lines.

As stated in the February 24 letter and as discussed during the May 3 meeting, ADEQ believes there is sufficient information to begin the remedial design for the site as part of the Property Development Plan (PDP). A method to determine the effectiveness of the remedy will be required with the submittal of the PDP.

An Implementing Agreement to establish Lindsey Cotton Warehouse, LLC's legal and financial environmental liability parameters for the property will be developed following completion and approval of the CSA Report.

Please contact me at 501-682-0888 or gutting@adeq.state.ar.us to arrange a meeting, discuss these comments, or if you need further assistance.

Sincerely,

Lorielle Gutting

Lorielle Gutting
Attorney

cc: Doug Ford, PMI
cc: James Lindsey, Lindsey Cotton Warehouse, LLC

w/ 1 attachment

ADEQ

ARKANSAS
Department of Environmental Quality

February 24, 2011

Mr. James Lindsey
PO Box 335
Caldwell, AR 72322

RE: Revised Comprehensive Site Assessment Report
Lindsey Cotton Warehouse, LLC – Former Yale Hoist Facility
(AFIN: 62-00001; EPA ID: ARD007016454)

Dear Mr. Lindsey:

The Arkansas Department of Environmental Quality - Hazardous Waste Division (ADEQ) has completed the review of the Revised Comprehensive Site Assessment (CSA) Report dated November 2010 for the Lindsey Cotton Warehouse site located at 3150 North Washington Street, Forrest City, Arkansas. Comments on the Revised CSA Report are as follows:

1. ***Section 1.3 – Regional Geology and Hydrogeology*, 3rd paragraph, page 7** – The Forrest City Water Utility currently operates seven municipal water supply wells in this area. Please update this information for future reference.

2. Complete receptor pathways exist for current and future receptors. These receptors and pathways were not fully identified or evaluated in the Revised CSA Report. In order to help determine if site contaminants pose a potential threat to human health, a Risk Assessment Work Plan should be submitted. The Risk Assessment Work Plan should be included in the Revised CSA Report as either an addendum or an appendix.

3. ***Section 4.2.1 – Surface Soil*, 3rd paragraph, page 16** – This section mentions that Polynuclear Aromatic Hydrocarbons (PAHs) are not listed in the EPA Regional Soil Screening Tables; however, screening levels for PAHs are listed in these Tables. Please revise this sentence and screen the concentrations of PAHs accordingly. The PAHs that exceed the Industrial soil screening levels should be considered as a Contaminant of Concern (COC) and summarized in a COC table.

4. ***Section 4.2.1 – Surface Soil*, 3rd paragraph, page 16** – Discuss possible sources for PAHs and polychlorinated biphenyls in the southern part of the property when they are barely detectable through the rest of the site.

5. ***Section 4.2.1 – Surface Soil*, 3rd paragraph, page 16** – Please revise the last sentence. The screening level for arsenic is 1.6 mg/kg, not 16 mg/kg.

6. ***Section 4.2.2 – Subsurface Soil,* 5th paragraph, pages 17 and 18** – ADEQ is unable to locate the detections of bis(2-ethylhexyl)phthalate in Table A2-2 mentioned in this section. Please verify and correct if necessary.

7. ***Section 4.2.2 – Subsurface Soil,* 5th paragraph, top of page 18 and Table A3-3** – The text mentions that concentrations of arsenic exceeded screening levels only in samples B-9 and B-1. ADEQ is unable to locate the exceedence of arsenic of 25 mg/kg in B-9. According to Table A3-3, concentrations of arsenic also exceeded the soil screening level at B-8, B-3, and B-6. Please verify the sample identifications and concentrations on Table A3-3 and correct these discrepancies.

8. ***Section 4.2.2 – Subsurface Soil,* 6th paragraph, page 18** – Please delineate the trichloroethylene (TCE) "hot spot" described as covering 5,000 square feet on a lithologic cross section.

9. ***Section 4.4.2 – May 2010 Investigation,* Data Summary for Figure 2, number 5, page 27** – Based upon the current data, we suggest that natural attenuation parameters be added during sampling to determine actual conditions at the site.

10. ***Section 4.4.2 – May 2010 Investigation*, pages 23 through 27** – The extent of the perched water identified at MW-3A has still not been defined as requested. More borings may need to be taken to determine the boundary.

11. ***Section 4.4.2 – May 2010 Investigation*, pages 23 through 27** – It is a possibility that contaminants may be moving radially eastward toward MW-1 and causing the increase in contamination. Additional samples may need to be taken in the vicinity to verify the source.

12. ***Section 4.4.2 – May 2010 Investigation*, pages 23 through 27** – Please discuss the potential for shallow groundwater under the warehouse building near MW-5. This issue was not discussed in the Revised CSA Report. Please discuss the extent of groundwater contamination below the warehouse building, if any.

13. ***Section 6.0 – Conceptual Human Health Site Exposure Model*, pages 28 and 29** – This section mentions current receptors are limited to site visitors. Although exposure frequency and duration are likely to be less than the typical on-site worker, it is more appropriate to refer to these receptors as current on-site workers since the warehouse is currently used for storing cotton. Please revise this section and ensure that the Conceptual Human Health Site Exposure Model is addressed in the Risk Assessment Work Plan.

14. ***Section 6.0 – Conceptual Human Health Site Exposure Model*, pages 28 and 29** – The CSA clearly mentions the TCE groundwater plume is likely influenced in the direction of the Forrest City municipal water supply wells which are located one-half mile southwest of the facility. This is further supported by the elevated concentrations of TCE in MW-2 near the property boundary. Based on this information, off-site residents should also be included as potential receptors. Please revise this section and ensure that the Conceptual Human Health Site Exposure Model is addressed in the Risk Assessment Work Plan.

15. ***Section 6.0 – Conceptual Human Health Site Exposure Model*, pages 28 and 29** – This section mentions a future construction worker would be a receptor because of the TCE "hot spot" and exposure could be eliminated by placing a protective barrier and drainage area over the TCE "hot spot". This section should be revised to indicate the Conceptual Site Model represents current conditions at the site, not based upon future remediation, deed restrictions, and engineering controls that may be implemented. In addition, future on-site workers should be included as a receptor to on-site groundwater. Please revise this section and ensure that it is addressed in the Risk Assessment Work Plan.

16. ***Section 7.0 – Findings*, Item #7, page 30** – The Industrial soil screening level of 18 mg/kg for arsenic is incorrect. Please change the screening level to 1.6 mg/kg.

17. ***Section 7.0 – Findings*, Item #12 and Item #13, page 30** – Based on these findings, part of the remedial design for this site should be to counter the influence of the municipal water supply wells. After reviewing the information submitted in the Revised CSA Report, ADEQ believes there is sufficient information to start plans for a remedial design.

18. ***Section 7.0 – Findings*, Item #14, page 31** – This item mentions that no completed receptor pathways were identified. The vapor intrusion pathway was not discussed in the Revised CSA Report. This may be a potential complete pathway for current and future on-site workers inside the warehouse and should also be evaluated. Please include the vapor intrusion pathway in the Conceptual Site Model and ensure that it is addressed in the Revised CSA Report and the Risk Assessment Work Plan.

Figures/Drawings

1. **Figures 4-4, 4-5, and 4-6** – The legend should be revised to give an explanation of the colors representing levels of contamination around the boring.

2. **Figure 4-10** – Please revise the map to show contour lines of equal TCE concentration or include values for colors representing levels of contamination in the plume in the legend.

Tables

1. The Revised CSA Report does not clearly present the COCs. After reviewing the Draft CSA Report, ADEQ requested the analytical data tables be revised to show a comparison of all detected soil concentrations to the appropriate screening values and any chemical with concentrations exceeding these values should be considered a COC. The tables in the current version still do not show this comparison. The screening levels in the Revised CSA Report are presented separately in Appendix E. Surface soil results should be compared to the Industrial screening levels; subsurface soil results should be compared to the protection of groundwater screening levels and the Industrial soil screening levels for direct contact; groundwater should be compared to the Maximum Contaminant Levels (MCLs) or Tapwater screening levels; and surface water should be compared to ecological screening levels. The chemicals that exceed these screening levels should be considered COCs and presented in separate tables.

2. Please provide a COC summary table showing all chemicals in the surface soil (0-6 inches) from the 2008 and 2010 sampling events with laboratory results that exceed the soil screening levels for direct contact.

3. Please provide a COC summary table showing all chemicals in the subsurface soil (greater than 6 inches) from the 2008 and 2010 sampling events that have laboratory results that exceed the protection of groundwater soil screening levels. The exceedances should be based on the MCL-based soil screening level, where available. If an MCL-based soil screening level is not available for a particular chemical, the Risk-based soil screening level should then be used. Since it is possible that future construction workers and/or utility workers may come in contact with chemicals in subsurface soils, the subsurface soils should also be screened to the Industrial soil screening levels for direct contact. This table(s) should clearly indicate which COCs exceed the protection of groundwater soil screening levels and which exceed the direct contact soil screening levels.

General Comments

1. Soil impacts are mainly in the Area of Concern (AOC) identified as the TCE "hot spot". The facility proposes to place a protective barrier and drainage layer over the TCE "hot spot" to prevent further contamination. Lindsey Cotton Warehouse should provide additional information (i.e., design and specification) regarding the protective barrier for this AOC when the Property Development Plan is submitted.

2. Due to the results received during this sampling event, ADEQ suggests that the extent of vertical contamination is the bottom of the groundwater aquifer. If there is disagreement regarding this conclusion, additional sampling will need to be done to support this assertion. This will involve drilling at least one additional deep well in the area of the contaminant plume.

3. The extent of horizontal and down-gradient contamination still needs to be determined, especially north and south of MW-2. There may be a possibility that the plume may become larger as it travels southwest from the site; if so, additional wells will need to be drilled to delineate the width.

The ADEQ encourages you to schedule a meeting at our offices to discuss these review comments. Please revise the CSA Report in accordance with these comments and resubmit the document within 30 days of receipt of this letter. Please contact me at 501-682-0853 or pearson@adeq.state.ar.us to arrange a meeting, discuss these comments, or if you need further assistance.

Sincerely,

Mary L Pearson

Mary L. Pearson
Project Coordinator

cc: Doug Ford, PMI

ADEQ

A R K A N S A S
Department of Environmental Quality

HAZARDOUS WASTE DIVISION ROUTING SLIP

May 5, 2011

Subject: **Lindsey Cotton –Former Yale Hoist Brownfields Revised CSA Report May 3, 2011 Meeting Summary and Response to Letter from Hugh Jarratt**

From: Mary Pearson

Route in turn to:	***Action Needed***	***Initials***	***Date***
Jay Rich	☑ Concurrence ☑ Review	JR	5-5-11
Ann Wiley	☑ Concurrence ☑ Review	AMW	5/5/11
Dianna Kilburn	☑ Concurrence ☐ Review	DK	5/6/11
Mostafa Mehran	☑ Concurrence ☑ Review	MM	5/6/11
Annette Cusher	☑ Concurrence ☑ Review	AC	5/6/11
Terry Sligh	☐ Concurrence ☐ Review	TS	5/9/11
Tammie Hynum	☑ Concurrence ☐ Review	~~TH~~	5/6/11
Tamara Almand	☐ Concurrence ☐ Review	TA	5-9-11
Clyde Rhodes	☐ Concurrence ☐ Review	CR	05/11/11

Note: Marking the Concurrence box indicates the individual agrees with the applicable text as it relates to their individual discipline and Work Section (e.g., Engineer; Risk Assessor; Geology; Compliance; Policy/Management), as applicable. Marking the Review box indicates the individual has read the document.

DISPOSITION:

Return to Mary Pearson

COMMENTS: